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REMARKS

Claims 2-32, 34-51, and 59-66 were in the application as recently examined. By the present amendments, claims 59 and 60 are canceled without prejudice. Claims 61-62 and 64-66 have been amended and new claim 67 has been added. No new matter is added by any of the amendments.

The courtesy of the Examiner in granting a telephone interview with the undersigned is acknowledged with thanks and appreciation. In the interview, the Section 112 rejection and the Van Kerrebrouck reference were discussed with respect to the limitation reading "less fine fibers by weight than in the core layer." Although agreement was not reached on claim allowability, the respective positions of the Examiner and the Applicant were clarified with respect to the subject limitation.

In the foregoing amendments, claims 65 and 66 include non-narrowing amendments to rearrange the word order, removing any doubt about the meaning of the claims. New claim 67 is essentially claim 60 rewritten into independent form (whereupon claims 59 and 60 are cancelled), and the other claims are amended to change their dependencies.

Claim Rejections – 35 U.S.C. §112

Claims 2-32, 34-51, and 59-66 stand rejected under 35 U.S.C §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim subject matter which Applicants regard as the invention. The rejection should be withdrawn.

The Examiner indicated a lack of clarity in the limitation reading "less fine fibers by weight than in the core layer." According to the Examiner, there were several possible constructions for this limitation that rendered it unclear: (1) the term "less" could be construed to modify the term "fine" as in the fibers in the core layer being thicker (less fine) than in the strengthening layer; (2) the phrase could be construed to include fewer in number but having the same denier; or (3) the term "fine fibers" could be construed to be limited to a "definition" of fine fibers found earlier in the claim, i.e., 0.8-3 denier, so that there could be less fine fibers of a denier 0.8-3 in the strengthening layers, but more fine fibers of a denier less than 0.8.

The term "fine fibers" is to be understood in the ordinary and customary meaning of the term as being the opposite of "coarse." *Oxford English Dictionary, 2d Ed.* In this sense, it is

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almost a term of relativity. Polymeric fibers of the type used in the invention as well as the relevant prior art are all "fine" in the absolute sense of being extremely thin or slender. But those ordinarily skilled in the art typically refer to fine fibers as those closer to or below a lower end of a thickness range. Conversely, "coarse", "regular", or "other" fibers tend to be closer to or above an upper end of a thickness range. Although there is no bright line distinction between "fine" fibers and fibers that are not "fine," it is generally believed in the industry that fibers with a denier of 4 or below are clearly "fine" and fibers with a denier of 6 or above are not "fine." Fibers between 4 and 6 denier can be either, depending upon the range of the bulk of fibers in the particular structure.

In Applicants' specification, a preferred embodiment has fine fibers in a range of approximately 0.8-3 denier. This range, however, is not to be construed as a definition of "fine fibers." Rather, it is a range approximation for 20% to 50% of the fine fibers in the core layer. (see paragraph 0023). There may be fine fibers thinner than 0.8 denier and there may be fine fibers thicker than 3.0 denier.

One way of viewing Applicant's limitation reading "less fine fibers by weight than in the core layer" is that if one were to obtain the average denier of the fibers in the core layer and compare it with the average denier of the fibers in the strengthening layers, the average in the core layer would be significantly less than the average in the strengthening layers. To achieve that, there must be more finer fibers in the core layer than in the strengthening layers. Another way of saying the same thing is that the weight of finer (or fine) fibers in the strengthening layers will be less than the weight of finer (or fine) fibers in the core layer. In other words, the strengthening layers have less (by weight) fine fibers than in the core layer.

Claim Rejections – 35 U.S.C. §102

Claims 2-11, 16, 17, 25-31, 34-38, 40, 42, 43, and 59-66 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent No. 6,066,388 issued to Van Kerrebrouck. The rejection is respectfully traversed.

Claims 65 and 66 both require the strengthening layers to have less by weight fine fibers than in the core layer. This concept is not taught or suggested by the Van Kerrebrouck patent.

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Van Kerrebrouck unquestionably teaches the following relevant concepts about a nonwoven fabric with two outer layers and at least one inner layer:

- (1) the layers differ in construction *by the fineness of the fibers*, the length of the fibers, the proportions of constructive and binding fibers and the method of binding; (col. 5, ll. 8-12) (emphasis added)
- (2) the fabric must have both binding fibers and constructive fibers (col. 2, ll. 45-48)
- (3) the constructive fibers of the outer layers are finer than the constructive fibers of the inner layer (col. 3, ll. 39-41; col. 5, ll. 13-14)
- (4) the range of thickness in the outer layers for constructive and binding fibers is 0.5 – 28 dtex (col. 3, ll. 41-44 and ll. 48-50)
- (5) the range of thickness in the inner layer for constructive fibers is 3-100 dtex and for binding fibers is 3-40 dtex (col. 3, ll. 45-47 and ll. 51-53)
- (6) the percentage of binding fibers is greater in the outer layers than in the inner layer (col. 2, ll. 65-68)

Notice that Van Kerrebrouck says *nothing* about the percentage by weight of fine fibers in any of the layers. In fact the teaching of Van Kerrebrouck is just the opposite of Applicants' invention, i.e., the outer layers will have *more* fine fibers by weight than the inner layer. This is expressly taught with respect to constructive fibers (see point (3) above). Thus, to the extent that there are as many or more constructive fibers in the outer layers, there will be *more* fine fibers by weight in the outer layers than in the inner layer. Moreover, this is implied with respect to binding fibers. We know this because the thickness range of binding fibers in the outer layers is narrower and lower than the thickness range of binding fibers in the inner layer (see points (4) and (5) above), and there are more binding fibers in the outer layers than in the inner layer (see point (6) above). Although the thickness ranges overlap, it is apparent that the range of thicker fibers is primarily in the inner layer and the range of thinner fibers is primarily in the outer layers. Since there are more binding fibers in the outer layers (where the thinner fibers are) than the inner layer (where the thicker fibers are), the implication of Van Kerrebrouck is that there will be *more* fine fibers in the outer layers than in the inner layer, the exact opposite of

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Applicants' claims 65 and 66. This implication is also consistent with the process disclosed in Van Kerrebrouck where the outer layers are needled to increase densification. Needling will be more advantageous when the fibers are finer than if the fibers were not fine. Finally, the differences expressed between the outer layers and the inner layer include the fineness of the fibers (see point (1) above).

In any event, Van Kerrebrouck teaches nothing about the percentage of fibers in the inner layer that must be in the denier range of 0.8-3, as required by claims 65 and 66. Van Kerrebrouck cannot therefore anticipate the claims. Moreover, there is no teaching, suggestion or motivation provided by Van Kerrebrouck for adopting the claimed range.

Because Van Kerrebrouck does not disclose a laminate with strengthening layers having less by weight fine fibers than in the core layer or 20-50% by weight fine fibers with a denier range of 0.8-3.0, it does not anticipate claim 65. Because Van Kerrebrouck does not disclose a headliner with strengthening layers having less by weight fine fibers than in the core layer or 20-50% by weight fine fibers with a denier range of 0.8-3.0, it does not anticipate claim 66.

Moreover, because Van Kerrebrouck in fact teaches the opposite of having less by weight fine fibers in the strengthening layers than in the core layer, and teaches nothing about the percentage of fine fibers in the inner layer within the defined range, there is no teaching, suggestion or motivation for applying the teaching of Van Kerrebrouck to arrive at the inventions of claims 65 and 66. Claims 65 and 66 are thus patentable over Van Kerrebrouck.

Also, because claims 2-11, 16, 17, 25-31, 34-38, 40, 42, and 43 all depend directly or indirectly from claims 65 or 66, they are likewise patentable over Van Kerrebrouck. With respect to claims 2 and 34, Van Kerrebrouck does not teach or suggest nylon. Concerning claims 4, 5, 36, and 37, Van Kerrebrouck does not teach the listed ranges, but rather suggests different ranges. Concerning claims 6, 8, and 40, Van Kerrebrouck does not teach the listed ranges. At most, Van Kerrebrouck teaches one example having a single basis weight in the inner layer of 400 gm/m² (or about 10.77 oz/yd²). Concerning claims 7 and 9, Van Kerrebrouck does not teach the listed ranges. At most, Van Kerrebrouck teaches one example having a total thickness of 35 mm and needling into the outer layers to a depth of 10 mm (col. 8, ll. 24-40). Nothing, however, teaches or suggests the thickness of the outer layers. Van Kerrebrouck teaches needling to increase densification in the outer layers, but "only on the surface" (col. 5, ll. 59-65). Needling

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is to a predetermined depth, but nothing suggests that the depth is equivalent to the depth of the outer layer. In fact, nothing in Van Kerrebrouck teaches the specific depth of the outer layers. The Examiner assumes that the 10 mm penetration of the needling in Van Kerrebrouck equals the depth of the outer layers. But where the needling depth corresponds substantially to the thickness of the outer layers, it can slightly exceed the limit between the various fiber layers (col. 2, ll. 62-64). Concerning claims 16 and 17, Van Kerrebrouck teaches nothing about a web adhesive layer. Concerning claim 21, Van Kerrebrouck does not teach the listed range. At most, Van Kerrebrouck teaches one example having a single basis weight in the outer layers of 200 gm/m² (or about 5.38 oz/yd²).

Claims 59-60 are cancelled. Claims 61-64 depend directly or indirectly from new claim 67 that contains the same limitation to the relative weights of fine fibers in the strengthening layers and the core layer as claims 65 and 66. Claim 67, together with the claims dependent therefrom are thus patentable over Van Kerrebrouck for the same reasons claims 65 and 66 are patentable.

Claim Rejections – 35 U.S.C. §103

Claims 39 and 41 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Van Kerrebrouck. The rejection is respectfully traversed.

The Examiner has apparently determined that it would not have been obvious to set the thickness in the laminate. Claims 7 and 9 (both containing the same limitations with respect to the laminate) were deemed by the Examiner to be anticipated, but not non-obvious with respect to Van Kerrebrouck. It would have been no more obvious to set the thickness in the molded headliner than it would have been in the laminate.

Moreover, the Examiner asserts that Van Kerrebrouck does not disclose the thickness of the core layer after molding. While this is true, Van Kerrebrouck nevertheless teaches in one example that the thickness of the article after molding is 5 mm, which is equivalent to about 0.18 inches (col. 8, ll. 42-43). Even assuming that the molded article in Van Kerrebrouck were to keep the same thickness proportions as the Examiner presumed in the laminate (20 mm total for the outer layers and 15 mm total for the inner layer, or 57% outer layer and 43% inner layer), the thickness of the outer layers of the molded article would be 2.85 mm (.113 in.) and the thickness

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of the inner layer would be 2.15 mm (.085 in.). The suggested core layer of .085 in. is outside the range in claims 39 and 41. In fact, being less dense, the inner layer would likely be more compressed when molded, suggesting that the core layer is further outside the claimed range.

In any event, the Examiner has asserted *without support* that it would have been an obvious modification to adjust the thickness of a mold. One can only guess at how adjusting the thickness of a mold will adjust the thickness of layers in a product molded within the mold. But even assuming that it were possible to adjust the thickness of the layers during the molding process, MPEP § 2144.03 requires the Examiner to cite a reference to support his assertion that it would have been obvious to adjust the thickness of the inner layer in the molded article of Van Kerrebrouck to be within the claimed range. Notwithstanding this rejection was made in on the same claims in an earlier office action, there has been no showing of a reference to support the assertion. There is simply no teaching or suggestion or motivation in Van Kerrebrouck that would reach the invention of claims 39 and 41.

Claim 32 stands rejected under 35 U.S.C. § 103 (a) as being unpatentable over Van Kerrebrouck in view of U.S. Patent No. 5,554,831 to Matsukawa et al. The rejection is respectfully traversed.

Claim 32 depends from claim 65 and is patentable over the cited art for the same reasons that claim 65 is patentable. Moreover, there is no basis for the alleged combination of Van Kerrebrouck and Matsukawa et al. Matsukawa et al. discloses a sound absorbing member for an automobile. The relevant teaching of Matsukawa et al. is nothing more than fine fibers having a denier of not more than 4 and preferably less than 2 should be included for sound absorbing performance. Nothing in either reference or in the combination suggests an upper limit of 2.7 denier for fine fibers in the core layer, or the percentage of fine fibers in the core layer. Claim 32 is thus patentable over the cited references.

Allowable Subject Matter

Applicants acknowledge with thanks the Examiner's determination of the allowability of claims 12-15, 18-24, and 44-51. In view of the foregoing, however, it is believed that all of the claims are patentable and therefore it is not necessary to rewrite these claims into independent form.

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Conclusion

Applicants respectfully submit that the claims as amended are patentable and look forward to receiving a timely notice of allowability. Any questions concerning the foregoing should be addressed to either Joel E. Bair at 616-742-3513 (jeb@mcgarrybair.com) or Mark A. Davis at 616-742-3514 (mad@mcgarrybair.com).

Respectfully submitted,

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